

## Position Description (PD) for Yucca Mountain Lead Lab Activities

Position Description Number	YM010	
Creation Date of PD	6/30/06	
Job Title	Nuclear Criticality Analyst	
SNL Dept Name	YMP Repository Test and Analysis	
SNL Org Number (or TBD)	06855	
Number of Openings	7	
Description of Position	Perform risk-informed nuclear criticality analyses for spent nuclear fuel configurations and waste forms as emplaced in the proposed YMP repository. Evaluate the potential for criticality events, and predict the consequences of such events if determined to be possible. Develop and exercise models to evaluate burn-up credit for spent fuel assemblies. Develop and exercise models to evaluate criticality under various post-closure scenarios and configurations. Develop validation strategies for such scenarios.	
Required Skills & Experience	Familiarity with criticality codes such as SCALE and MCNP or familiarity with SAPHIRE fault-tree/event-tree type analyses. 5 years of experience in nuclear related industry or repository related sciences including at least 1 year of experience on YMP	
Desired Skills & Experience (if applicable)		
Required Education (Degrees & Levels)	B.Sc. or higher in Nuclear, Mechanical, Civil or Chemical engineering or the physical sciences.	
Desired Education (Degrees & Levels - if applicable)		
Full Time Position? (Y/N)	Y	
Job Requires lifting 35+ Pounds (Y/N)	N	
Desired Start Date	10/1/06	
Can this position accommodate...		
Part Time Employees? (Y/N)	Telecommuting? (Y/N)	Foreign Nationals? (Y/N)
Y	N	Y

Please Select All Related WBS Elements for this PD  
(required for distributing PDs to contract providers for sourcing)

WBS Elements of 1.5.03		X
1.5.03.10	Neutronics (Criticality) - Licensing	X

Sand #: 2006-4508W